



JOB SPECIFICATION

Code 18640
Grade GS 52

ELECTRONICS LEAD TECHNICIAN

General Purpose

Under general supervision, perform specialized, highly technical electronic service, equipment and system repairs, or lead less experienced staff in electronic repairs and maintenance.

Typical Duties:

Install and repair a variety of electronic or electromechanical control systems and equipment. Involves: Troubleshoot and repair electronic traffic controls, utility treatment plant instrumentation, process monitoring and control systems, computerized controls, programmable controllers, microphones, headsets, mobile data terminals, supervisory control and data acquisitions (SCADA), fire and security alarms, security card systems, closed circuit televisions, clock systems, fiber optic systems, communications systems, and other related electronic or electromechanical equipment. Identify parts for replacement, maintenance and other work required in accordance with established procurement procedures. Inspect equipment and systems. Provide preventative maintenance services. Test and validate results using a variety of test equipment. Program or re-program equipment as required and calibrate instrumentation and monitoring equipment for accuracy. Operate standard or specialized vehicles and equipment to perform duties, including aerial device vehicles.

Install new or enhanced electronic services, equipment or systems. Involves: Install electrical conduit, wire systems, motor components, and electrical or electronic devices. Research, identify costs, and order parts, supplies, equipment and materials to complete assigned tasks. Wire, connect, test and maintain new service or systems. Coordinate electronic service needs and schedules with other trades, vendors, contractors, departments and others. Repair and maintain fiber optic communication and infrared detection systems. Install, remove, construct, refurbish and perform other tasks associated with the area of assignment.

Operate and design improvements to control systems. Involves: Program and implement changes to traffic signal functions by utilizing traffic signals software. Participate in SCADA network equipment design, selection and development, including interface protocols and system backbones. Review plans and specifications of electronic control systems to ensure compliance with operational needs. Adjust and calibrate instruments to ensure functioning within standards. Configure process control schemes, computer input and output points, displays and control graphics. Develop and enter programs, including those for field devices. Verify data transmissions. Make approved changes to meet functional specifications. Prepare schematic drawings and sketches to reflect changes or alterations made in instruments, circuits and systems.

Perform related duties as required. Involves: Perform duties of coworkers as necessary to ensure continuity of operations. Coordinate system upgrades with contractors and users to minimize disruption. Maintain cleanliness of tools, equipment and work spaces. Observe safe work practices. Respond to user questions, problems or complaints. Respond to emergency calls for service on a call-out basis and work outside normal business hours as needed. Maintain and update files, records, reports and logs.

Serve as designated leadworker, if assigned. Involves: Guide, monitor and train less knowledgeable employees in electronics repair or maintenance work. Schedule and assign work. Review and check work. Guide others in work processes. Recommend areas for employee skills improvement. Provide input to employee performance evaluation process.



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Knowledge, Skills, and Abilities

- Application of comprehensive knowledge of the installation, repair and maintenance of electronics equipment and systems, including the occupational hazards and safety precautions applicable to repair work.
- Application of good knowledge of the tools of the trade and electronic testing devices.
- Application of some knowledge of supervisory techniques.
- Troubleshoot equipment or system malfunctions, perform repairs or preventative maintenance and maintain accurate maintenance records.
- Establish and maintain effective working relationships with vendors, contractors, city officials, public safety personnel, and other departments, regulatory agencies, inspectors, coworkers and the general public.
- Safely operate City vehicles, equipment and tools.
- Clear, concise oral and written communication.
- Follow oral and written instructions, read and interpret blueprints, plans, schematics, and other construction related documents and maintain accurate records.
- Install, troubleshoot, repair and operate electronic equipment and related circuitry, computers and testing equipment.

Other Job Characteristics

- Occasional lifting of up to 50 pounds.
- On call twenty-four (24) hours for emergencies.
- Exposure to extreme weather conditions, occasional exposure to potential physical harm, infectious disease and hazardous chemicals.
- Positions assigned duties which require a Commercial Driver's License (CDL) to operate vehicles on public thoroughfares, or positions of a safety sensitive nature within Mass Transit, are subject to federal drug and alcohol testing regulations, which include preemployment, post-accident, reasonable suspicion, random, return to duty and follow-up testing.

Minimum Qualifications

Education and Experience: A High School or GED, and four (4) years of experience in the maintenance and servicing of a variety of electronic or electromechanical equipment and systems.

Licenses and Certificates: Some positions may require a Texas Class "C" Driver's License or equivalent from another state.